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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,778	11/18/2002	Bryan Metts	30GF-9121 (14983-75)	2412
23465	7590	06/17/2009		
JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740			EXAMINER HO, DUC CHI	
			ART UNIT	PAPER NUMBER
			2419	
			NOTIFICATION DATE	DELIVERY MODE
			06/17/2009 ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USpatents@armstrongteasdale.com

### Office Action Summary

**Application No.**

10/065,778

**Applicant(s)**

METTS ET AL.

**Examiner**

DUC C. HO

**Art Unit**

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art of the instant application, see figure 1, paragraphs [0002-003], and 0015, hereinafter referred as the APA, in view of Schmidt (US 7,058,040).

Regarding claim 1, the APA discloses a programmable logic controller (PLC) wireless communication system 10-fig.1.

*providing a central processing unit (CPU) configured for a PLC including a PLC module bus for coupling at least one PLC module to the CPU* (the PLC wireless system 10-fig.1 includes a backplane 12, and a CPU (not shown) being mounted on a CPU card 14-fig.1. The backplane 12 includes a plurality of module connectors 16, wherein

the connectors communicate with the CPU via a PLC module bus (not shown), see par. 0015);

*the CPU mounted on a backplane of a rack* (the CPU (not shown) mounted on the CPU card 14 on a backplane 12-fig.1 of a rack, see par. 0002);

The APA, however, does not expressly teach (1) providing a means for wireless radio frequency communications between the PLC and a plurality of remote devices, and operationally coupling the means to the CPU; (2) the means and the CPU communicate without using the PLC module bus.

One skill in the art would recognize the advantage of employing a means i.e. such as a Bluetooth transceiver, for wireless radio frequency communications to other Bluetooth devices or wireless devices located in other rack mounted systems configured with the PLC. When the Bluetooth transceiver is combined with the CPU in the PLC system 10-fig.1, the combination of the CPU & Bluetooth transceiver enables the PLC system 10 to communicate with other remote PLC devices, and also providing wireless communication between the CPU with the wireless module 18-fig.1 that is accepted by the module connectors 16-fig.1 without using a PLC module bus (corresponding to (1) and (2)).

Schmidt discloses channel interference reduction. The wireless device 100-fig.2A is a Bluetooth transceiver, see col. 5, lines 38-46.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the APA with Schmidt.

The suggestion/motivation for doing so would have been to provide wireless capability to the CPU in order to communicate with other wireless modules, i.e. the wireless module 18, without using a PLC module bus, and for communication with other devices in remote racks wirelessly.

Therefore, it would have been obvious to combine the APA with Schmidt to obtain the invention as specified in claim 1.

Regarding claims 2, and 20, as discussed in claim 1, the Bluetooth device 100-fig.2A of Schmidt is to be mounted on top of the CPU and the CPU's card 14-fig.1 of the APA.

Regarding claims 3, 11, and 16, in Schmidt the device 100-fig.2A provides wireless radio frequency communications as a Bluetooth protocol transmitter/receiver, see col. 5, lines 38-46.

Regarding claims 4, 12, and 17, in Schmidt the device 100-fig.2A.1 provides and IEEE 802.11 protocol transmitter/receiver, see col.5, lines 38-50.

Regarding claims 5, 13, and 18, in Schmidt the device 100-fig.2A provides a cellular protocol transmitter/receiver, see col. 5, lines 38-42.

Regarding claims 6, 14, and 19, in the APA the CPU (not shown) mounted on the CPU card-fig.1 constitutes a Network Interface Unit.

Regarding claim 7, this claim has similar limitations as claim 1. Therefore, it is rejected under the APA-Schmidt for the same reasons set forth in the rejection of claim 1. In the APA-Schmidt the PLC devices are capable of transmitting/receiving messages to/from other PLCs.

Regarding claim 8, the claimed limitations are discussed in claim 1. The CPU of the APA and the Bluetooth device 100-fig.2A of Schmidt are both mounted on a CPU card 14-fig.1 of the APA.

Regarding claim 9, this claim has similar limitations as claim 1. Therefore, it is rejected under the APA-Schmidt for the same reasons set forth in the rejection of claim 1.

Regarding claim 10, in the APA, the CPU communicates with a module connector 16-fig.1 connected to the backplane via a (not shown) PLC module bus.

Regarding claim 15, this claim has similar limitations as claim 1. Therefore, it is rejected under the APA-Schmidt for the same reasons set forth in the rejection of claim 1.

### ***Response to Arguments***

4. Applicant's arguments filed 02-24-09 have been fully considered but they are not persuasive. Mounting a Bluetooth transceiver as taught by Schmidt onto a CPU mounted on a CPU card 14 of the APA would enable wireless communication of the CPU card to other wireless communication modules, i.e., module 18, without using the PLC module bus as cited in claim 1 and other independent claims 7, 9, and 15.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

/DUC C HO/

Primary Examiner, Art Unit 2419

06-13-09